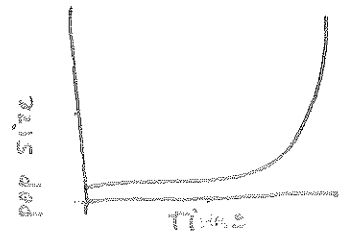
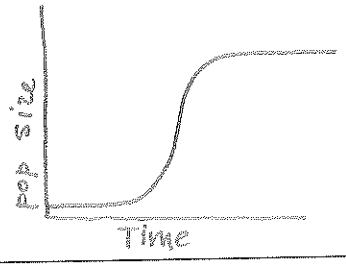
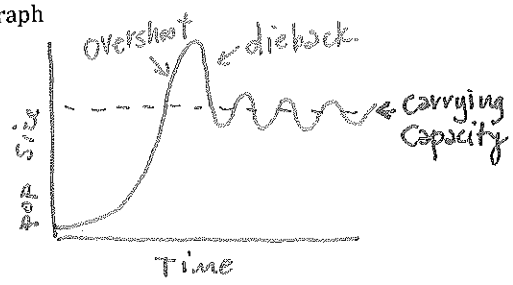
Ecological Populations Quiz 1

Name: Key

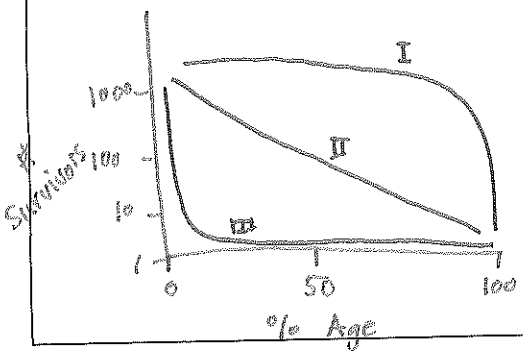
1. Draw and **describe** exponential and logistical growth with axis labeled (and units)

Exponential	Logistical
	
Description: • population doubles in size in a relatively short period of time. • No limiting factors	Description: Exponential growth followed by slower growth due to liming factors.

2. Draw and **describe** a graph, labeling overshoot, dieback, carrying capacity

Graph	Define Carrying Capacity
	The maximum number of organisms an area can sustainably support over a long time.

3. Draw and label a graph showing three types of survivorship. **Describe** each and give examples.

Graph	Description & examples
	Type I - K strategists - orgs live long time & then die when they are old. ex. Gorillas, Humans Type II - Organisms have equal chance of dieing @ any point in their lives. ex. Hydra Type III - r strategists - Orginisms die young at higher # than later in life ex. roaches

4. **Explain** why logistical growth is a good example of steady-state equilibrium.

Logistical growth results in the population stabilizing @ carrying capacity. Since steady-state equilibrium always has fluctuation around a fixed path, this point in logistical growth has ~~ear~~ populations that fluctuate around carrying capacity.

5. Circle the Density-Independent Limiting Factors and put a square around the Density-Dependent limiting Factors:

Hurricanes | Disease | Flooding | Predators | Fires | Food Availability | UV Light